

## **Amendments to the Claims**

This listing of claims replaces all prior versions and listings of claims in the application:

### **Listing of Claims**

1. (Previously Presented) A method for providing a line identifier to a digital subscriber line ("DSL") internet service provider, comprising:
  - associating the line identifier with a port assigned to a subscriber of DSL internet service, the line identifier being usable to authenticate a service request;
  - storing the line identifier in a database;
  - receiving the service request for DSL internet service from the subscriber on the port via a DSL internet connection;
  - retrieving the line identifier from the database in response to the service request;
  - transferring the line identifier to the DSL internet service provider; and
  - authenticating the service request for DSL internet service from the subscriber based on the line identifier;wherein the service request is only authenticated when the subscriber sends the service request through the port associated with the line identifier.
2. (Previously Presented) The method of claim 1, further comprising:
  - authenticating a subscriber identifier obtained from the service request for DSL internet service; and
  - querying the database in response to the authenticated subscriber identifier to retrieve the line identifier therefrom.
3. (Previously presented) The method of claim 2, further comprising:
  - authenticating the subscriber identifier at the DSL internet service provider.
4. (Previously Presented) A method of authenticating a subscriber request for digital subscriber line ("DSL") internet service, comprising:
  - receiving the subscriber request for DSL internet service on a port of a remote

server via a DSL internet connection;

transferring a subscriber identifier obtained from the subscriber request for DSL internet service to a provider of the DSL internet service;

transferring to the DSL internet service provider a line identifier corresponding to the port; and

authenticating the service request for DSL internet service based on the subscriber identifier and the line identifier;

wherein the service request for DSL internet service from the subscriber is only authenticated when the subscriber sends the service request through a port associated with the line identifier.

5. (Previously Presented) The method of claim 4, further comprising:

authenticating the subscriber identifier; and

querying a database in response to the authenticated subscriber identifier to retrieve the line identifier therefrom.

6. (Previously Presented) The method of claim 4, wherein the subscriber identifier and the line identifier are transferred together to the provider of the DSL internet service.

7. (Previously Presented) The method of claim 4, wherein the subscriber identifier and the line identifier are transferred separately to the provider of the DSL internet service.

8. (Previously Presented) The method of claim 4, wherein the service request is authenticated by the provider of the DSL internet service.

9. (Previously Presented) A system for providing a line identifier to a digital subscriber line ("DSL") internet service provider, comprising:

means for associating the line identifier with a port assigned to a subscriber of DSL internet service, the line identifier being usable to authenticate a service request for DSL internet service;

means for storing the line identifier in a database;

means for receiving the service request for DSL internet service from the subscriber on the port via a DSL internet connection;

means for retrieving the line identifier from the database in response to the service request for DSL internet service;

means for transferring the line identifier to the DSL internet service provider; and

means for authenticating the service request for DSL internet service from the subscriber based on the line identifier;

wherein the service request is only authenticated when the subscriber sends the service request for DSL internet service through a port associated with the line identifier.

10. (Previously Presented) The system of claim 9, further comprising:

means for authenticating a subscriber identifier obtained from the service request for DSL internet service; and

means for querying the database in response to the authenticated subscriber identifier to retrieve the line identifier therefrom.

11. (Previously Presented) The system of claim 9, further comprising:

means for authenticating the subscriber identifier at the DSL internet service provider.

12. (Previously Presented) A remote access server, comprising:

a port for communicating with a subscriber of digital subscriber line ("DSL") internet service;

a management interface for associating a line identifier with the port;

a database, operatively associated with the management interface, for storing the line identifier;

a database interface for retrieving the line identifier in response to receiving a subscriber service request for DSL internet service on the port via a DSL internet connection; and

a network interface for transferring the retrieved line identifier to a DSL internet service provider;

wherein the DSL internet service provider is operative to authenticate the service request based on the line identifier only when the subscriber sends the service request through a port associated with the line identifier.

13. (Original) The remote access server of claim 12, wherein the database interface queries the database in response to an authenticated subscriber identifier to retrieve the line identifier from the database.

14. (Previously Presented) The remote access server of claim 12, wherein the network interface transfers a subscriber identifier to the DSL internet service provider.

15. (Previously Presented) The remote access server of claim 14, wherein the subscriber identifier and the line identifier are transferred together to the DSL internet service provider.

16. (Previously Presented) The remote access server of claim 14, wherein the subscriber identifier and the line identifier are transferred separately to the DSL internet service provider.

17. (Previously Presented) A system for accessing a network service, comprising:  
a digital subscriber line ("DSL") internet service provider of the network service;  
a subscriber unit configured to present a user interface for selecting the network service;

an access server including a port for communicating with the subscriber unit via a DSL internet connection and for associating a line identifier with the subscriber unit;

a database, operatively associated with the access server, for storing the line identifier;

a database interface for retrieving the line identifier in response to receiving a DSL internet service request for the network service on the port via the DSL internet connection; and

a network for transferring the retrieved line identifier to the DSL internet service provider;

wherein the DSL internet service provider authorizes access to the network service based on the retrieved line identifier;

wherein the DSL internet service provider authorizes access to the network service only when the subscriber unit sends the DSL internet service request for the network service through a port associated with the line identifier.

18. (Previously Presented) The system of claim 17, wherein the network transfers a subscriber identifier to the DSL internet service provider and the DSL internet service provider authorizes access to the network service based on the subscriber identifier and the retrieved line identifier.

19. (Previously Presented) The system of claim 18, wherein the subscriber identifier and the line identifier are transferred together to the DSL internet service provider.

20. (Previously Presented) The system of claim 18, wherein the subscriber identifier and the line identifier are transferred separately to the DSL internet service provider.

21. (Currently Amended) A computer-usable medium storing a computer program for directing a programmable device to perform a method comprising:

associating the line identifier with a port assigned to a digital subscriber line ~~lien~~ ("DSL") internet service subscriber, the line identifier being usable to authenticate a service request for DSL internet service;

storing the line identifier in a database;

receiving the service request for DSL internet service from the DSL internet service subscriber on the port via a DSL internet service connection;  
retrieving the line identifier from the database in response to the service request for DSL internet service;  
transferring the line identifier to a DSL internet service provider; and  
authenticating the service request for DSL internet service from the subscriber only when the subscriber sends the DSL internet service request through the port associated with the line identifier.

22. (Previously Presented) A system for providing access to a network service, comprising:

a digital subscriber line ("DSL") internet service provider for providing the network service;

a DSL internet subscriber unit having a user interface for selecting the network service;

a remote access server including a port for communicating with the DSL internet subscriber unit via a DSL internet connection and a management interface for associating a line identifier with the DSL internet subscriber unit;

a DSL internet network connecting the DSL internet subscriber unit and the remote access server;

a database, operatively associated with the access server, for storing the line identifier;

a database interface for retrieving the line identifier in response to receiving a subscriber request for the network service on the port via the DSL internet connection;  
and

a network for transferring to the DSL internet service provider the retrieved line identifier and a subscriber identifier obtained from the subscriber request;

wherein the DSL internet service provider authorizes access to the DSL internet network service based on the retrieved line identifier and the subscriber identifier; and

wherein the DSL internet service provider authorizes access to the DSL internet network service only when the subscriber request for the network service is sent through a port associated with the line identifier.

23. (Previously Presented) The system of claim 22, wherein the subscriber identifier comprises a login ID and a password received from the DSL internet subscriber unit.

24. (Previously Presented) The computer-readable medium of claim 21, wherein the service request for DSL internet service is authenticated based on the retrieved line identifier and a login ID and password received from the subscriber.

25. (Previously Presented) The system of claim 17, wherein the DSL internet service provider authorizes access to the network service based on the retrieved line identifier and a login ID and password received from the subscriber.

26. (Previously Presented) The remote access server of claim 12, wherein the DSL internet service provider is operative to authenticate the service request based on the line identifier, and a login ID and a password received from the subscriber.

27. (Previously Presented) The system of claim 9, wherein the means for authenticating the service request authenticates the service request based on the line identifier and a login ID and password received from the subscriber.

28. (Previously Presented) The method of claim 4, wherein the subscriber identifier comprises a login ID and a password received from the subscriber.

29. (Previously Presented) The method of claim 1, wherein the service request is authenticated based on the line identifier and a login ID and password received from the subscriber.